

SERVICE MANUAL

AM/FM STEREO TUNER **SANSUI TU-5500**



Sansui

SANSUI ELECTRIC CO., LTD.

This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the TU-5500 correctly.

When ordering the parts, use the stock number and parts name specifically referring to the Parts Locations & Parts List.

For general usage and maintenance of the unit, please refer to the Operating Instructions attached with the unit.

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1. SPECIFICATIONS

FM SECTION

TUNING RANGE88 to 108MHz
 SENSITIVITY (IHF)1.9 μ V
 TOTAL HARMONIC DISTORTION
 MONOless than 0.3%
 STEREOless than 0.4%
 SIGNAL TO NOISE RATIO...better than 70dB
 SELECTIVITYbetter than 60dB
 CAPTURE RATIO (IHF)less than 2.0dB
 IMAGE FREQUENCY REJECTION
 better than 55dB
 IF REJECTIONbetter than 80dB
 SPURIOUS RESPONSE REJECTION
 better than 70dB
 STEREO SEPARATION.....better than 40dB at 1KHz
 SPURIOUS RADIATION....less than 34dB
 FREQUENCY RESPONSE20 to 15,000Hz
 FM ANTENNA INPUT IMPEDANCE
 300 Ω balanced
 75 Ω unbalanced
 FM ANTENNA ATTENUATOR
 -20dB

AM SECTION

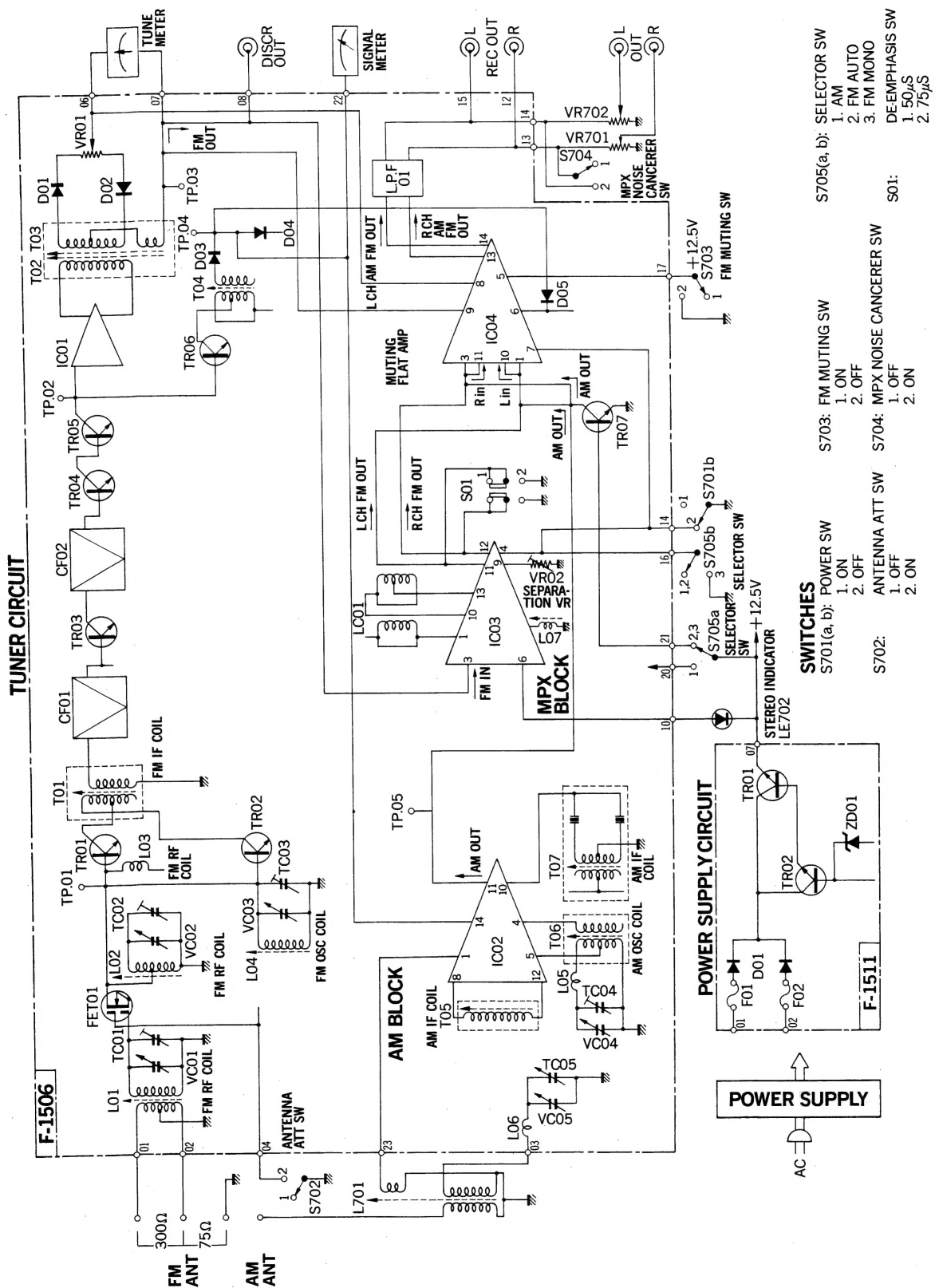
TUNING RANGE535 to 1,605KHz
 SENSITIVITY (Bar Antenna)...50dB/m
 SELECTIVITYbetter than 30dB
 IMAGE FREQUENCY REJECTION
 better than 80dB/m at 1MHz
 IF REJECTIONbetter than 80dB/m at 1MHz

OTHERS

OUTPUT.....0 to 0.775V
 REC OUTPUT0.4V
 SEMICONDUCTORS
 TRANSISTORS9
 FET1
 ICs4
 DIODES8
 ZENER DIODE1
 LEDs2
 POWER REQUIREMENTS
 POWER VOLTAGE100, 117, 220, 240V 50/60Hz
 POWER CONSUMPTION...9W (rated)
 DIMENSIONS434mm (17 $\frac{1}{8}$ " W
 130mm (5 $\frac{1}{8}$ " H
 243mm (9 $\frac{5}{16}$ " D
 WEIGHT6.9Kg (15.2 lbs) net
 8.3Kg (18.3 lbs) packed

* Design and specifications subject to change without notice for improvement.

2. BOLCK DIAGRAM



3. ALIGNMENTS AND ADJUSTMENTS

Abbreviation

Equipment

AM FM Generator Oscilloscope Genescope
 AM Standard Signal Generator AM SSG
 FM Standard Signal Generator FM SSG
 FM Stereo Generator Stereo SG
 Oscilloscope Scope
 Audio Oscillator Audio Osc.
 Distortion Meter Dist. Meter

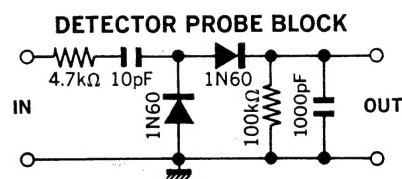
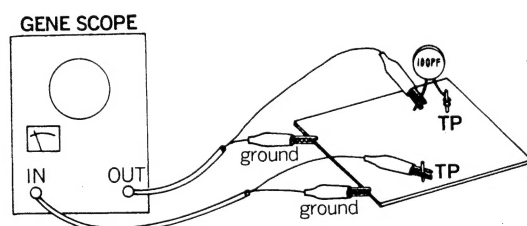
Others

Clockwise CW.
 Counterclockwise CCW.
 Antenna ANT.
 Modulation MOD.

3-1. FM IF Alignment (See Figs. 3-4, 3-5 on page 6)

Note: 1. Selector FM AUTO
 2. Output level of genescope After attenuator
 3. Sweepwidth 1.5~2cm/150kHz
 4. Frequency band 9.5~11.5MHz

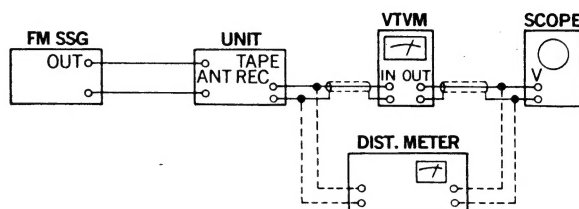
5. Connection Connect the output of genescope to TP. 1 through 100pF ceramic capacitor.
 6. FM MUTING switch OFF.

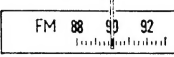
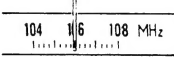


STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	IF coil	Output 65dB Genescope	TP. 1 (Fig. 3-5)	TP. 2 (Fig. 3-5) Use Detector Probe	T01 (Fig. 3-5)	Max. IF waveform 1 as (Fig. 3-4)	
2	Meter coil	Output 70dB Genescope	Same as above	TP. 4 (Fig. 3-5)	T04 (Fig. 3-5)	Max. IF waveform 2 (Fig. 3-4) Set the center of waveform 2 with waveform 1 as (Fig. 3-4)	
3	Discriminator coil	Same as above	Same as above	TP. 3 (Fig. 3-5)	T02 T03 (Fig. 3-5)	Max. linearity of S curve Set the center of S curve to of waveform 1 as (Fig. 3-4)	

3-2. FM Dial Calibration, Mono Distortion, TUNE meter and RF Alignment (See Fig. 3-5 on page 6)

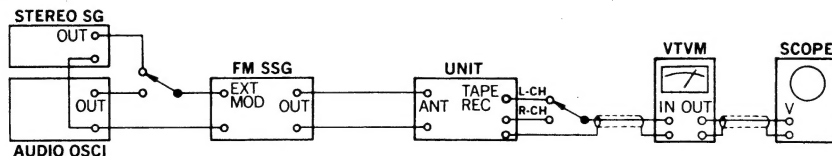
Note: 1. Selector.....FM AUTO
2. Confirm start point of dial pointer before alignment.
3. FM MUTING switchOFF.



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	90MHz Dial Calibration	90MHz ANT input 60dB 400Hz (100% MOD) FM SSG	ANT terminal 300Ω	REC OUT L or R-ch VTVM & Scope	L04 (Fig. 3-5)	Max. output	◦Set Dial on 90MHz 
2	106MHz Dial Calibration	106MHz ANT input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	Trimmer TC03 (Fig. 3-5)	Same as above	◦Set Dial on 106MHz 
3	Confirm 98MHz Dial Calibration	98MHz ANT input 60dB 1kHz (100% MOD) FM SSG	Same as above	Same as above		Confirm 98MHz Dial Calibration	◦If not, repeat from step 1, 2
4	90MHz RF Adj.	90MHz ANT input 50dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	L01, L02 (Fig. 3-5)	Max. output	◦Tune FM SSG (Max. indication of Signal Meter)
5	106MHz RF Adj.	108MHz ANT input 50dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	Trimmer TC01, TC02 (Fig. 3-5)	Same as above	◦Tune FM SSG (Max. indication of Signal Meter)
6	Distortion	98MHz ANT input 60dB 400Hz (100% MOD) FM SSG	Same as above	REC OUT L or R-ch Dist. meter & Scope	T03 (Fig. 3-5)	Min. distortion	Same as above
7	TUNE meter Volume	Same as above	Same as above	TUNE meter	VR01 (Fig. 3-5)	Center on meter	Same as above

3-3. MPX Alignment (See Fig. 3-5 on page 6)

Note: 1. Selector.....FM AUTO
2. FM MUTING SwitchOFF



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	19kHz coil	98MHz ANT input 60dB FM SSG Pilot 19kHz (10% MOD) L-ch 1kHz (45% MOD) R-ch (0% MOD) Stereo SG	ANT terminal 300Ω	REC OUT L-ch VTVM & Scope	L07 (Fig. 3-5)	Max. output	◦Tune FM SSG (Max. indication of signal meter)

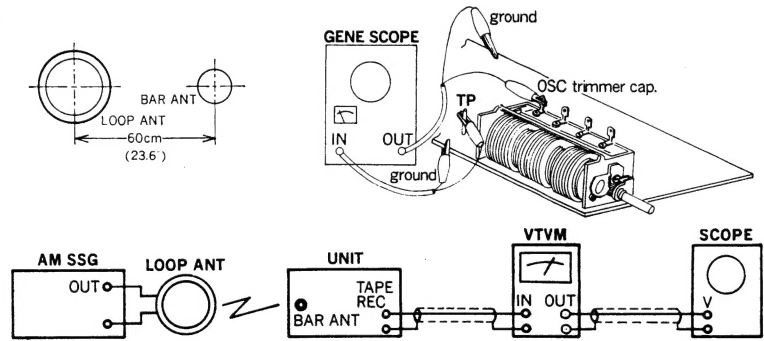
STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
2	Separation	Same as above	Same as above	REC OUT R-ch VTVM & Scope	VR02 (Fig. 3-5)	Min. output	
3	Confirm Separation	98MHz ANT input 60dB FM SSG Pilot 19kHz (10% MOD) L-ch (0% MOD) R-ch 1kHz (45% MOD) Stereo SG	Same as above	REC OUT L-ch VTVM & Scope		Min. output	◦If less the 40dB adjust VR02

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
7	600kHz RF Adj.	600kHz ANT input 76dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	Bar ANT L701	Max. output	
8	1400kHz RF Adj.	1400kHz ANT input 76dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	Trimmer TC05 (Fig. 3-5)	Same as above	
9	Confirm 1000kHz RF Adj.	1000kHz ANT input 76dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above		Confirm 1000kHz RF Adj.	◦If not repeat from step 7, 8

3-4. AM IF, Dial Calibration and RF Alignment
(See Figs. 3-2, 3-3, 3-5 on page 6)

- Note: 1. Selector.....AM
2. Confirm start point of dial pointer before alignment.
3. In case of using loop antenna, increase output of AM SSG for 26dB than bar antenna's direct input as it attenuates input sensitivity for 26dB (See Fig. 3-1).

Fig. 3-1



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	IF coil	Output 70dB Genescope	OSC trimmer cap. TC04 (Fig. 3-5)	TP. 5 (Fig. 3-5)	T07 (Fig. 3-5)	Max. IF waveform (Fig. 3-2)	
2	IF coil	Output 60dB Genescope	Same as above	Same as above	T05 (Fig. 3-5)	Max. IF waveform (Fig. 3-3)	
3	IF coil	Output 70dB Genescope	Same as above	Same as above		Max. IF waveform (Fig. 3-3)	◦If not, readjust T07 & T05 slightly
4	535kHz Dial Calibration	535kHz ANT input 86dB 400Hz (30% MOD) AM SSG Use loop ANT	Bar ANT	REC OUT L or R-ch VTVM & Scope	T06 (Fig. 3-5)	Max. output	◦If broadcasting station is near, it might be used
5	1400kHz Dial Calibration	1400kHz ANT input 86dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	Trimmer TC04 (Fig. 3-5)	Same as above	Same as above
6	Confirm 1000kHz Dial Calibration	1000kHz ANT input 86dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above		Confirm 1000kHz Dial Calibration	◦If not, repeat from Step 4, 5

Fig. 3-2

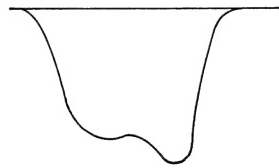


Fig. 3-3

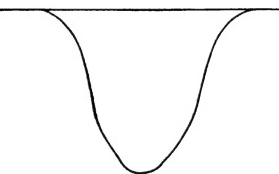


Fig. 3-4

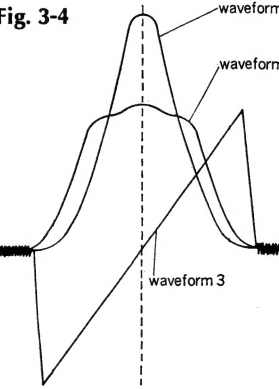
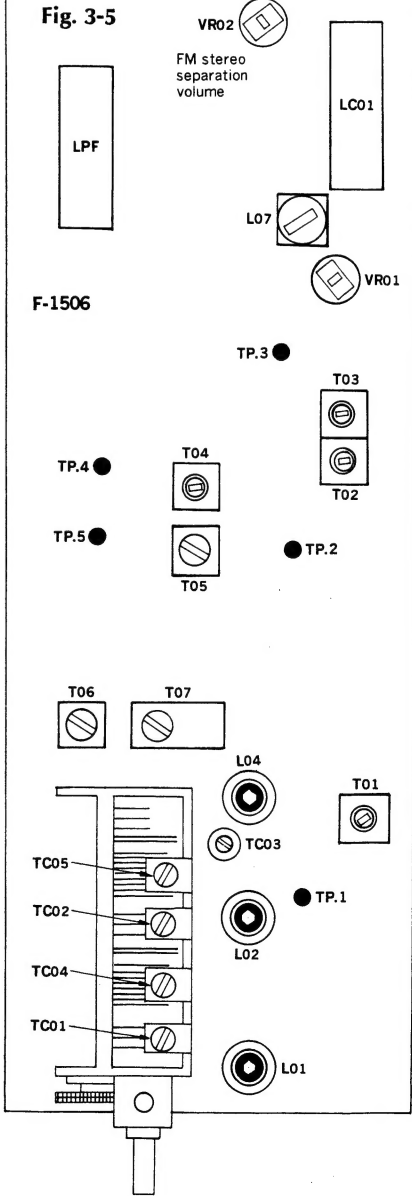


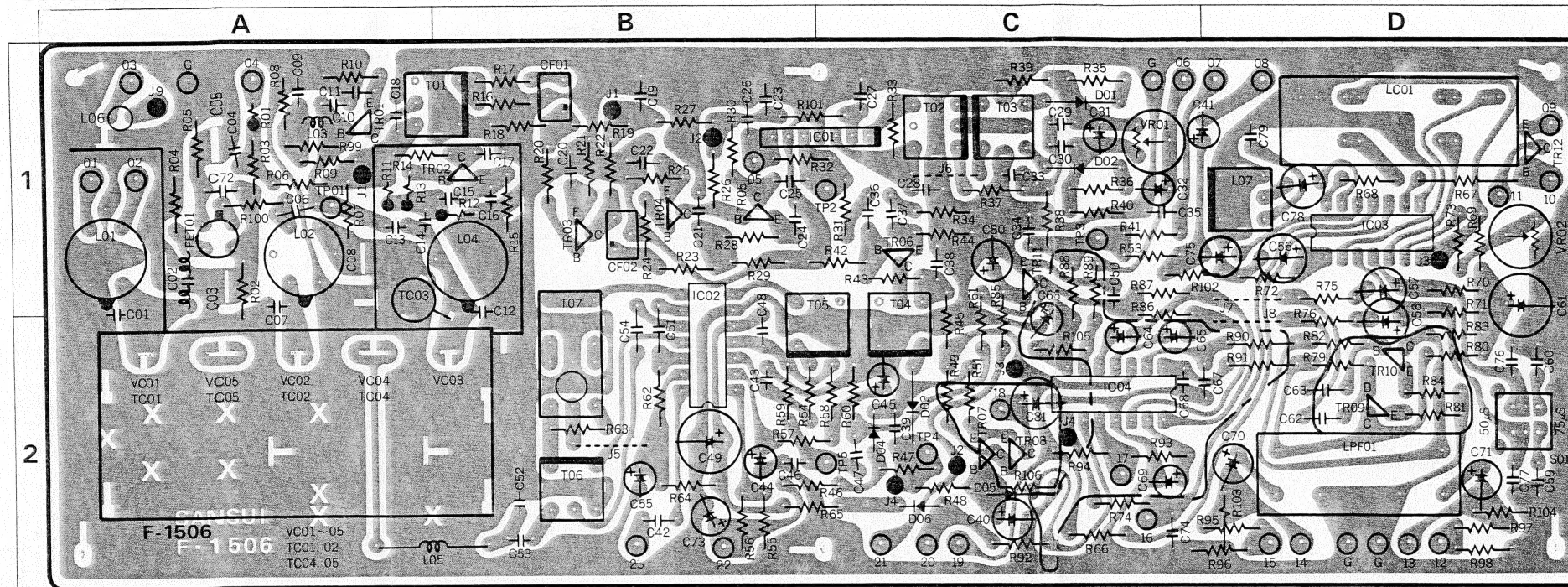
Fig. 3-5



4. PARTS LOCATIONS AND PARTS LISTS

4-1. F-1506B Tuner Circuit Board (Stock No. 7520850 Complete Circuit Board F-1506B)

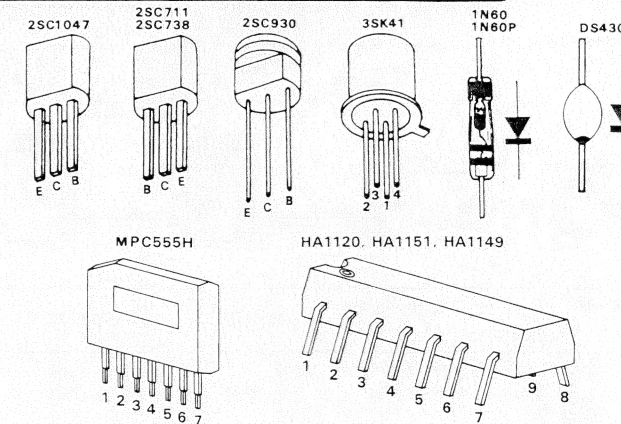
Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR01	0305801	2SC1047 (B)	1 A
TR02	0305790, 1	2SC930 (C, D)	1 B
TR03	0306112, 3	2SC738 (C, D)	1 B
TR04	0306112, 3	2SC738 (C, D)	1 B
TR05	0306112, 3	2SC738 (C, D)	1 B
TR06	0306112, 3	2SC738 (C, D)	1 B
TR07	0305731, 2	2SC711 (E, F)	2 C
IC01	0360120	μPC555H	1 B, C
IC02	0360150	HA1151	1, 2 B
IC03	0360080	HA1120	1 D
IC04	0360140	HA1149	2 C
FET01	0370120, 1	3SK41 (L, K) FET	1 A
D01	0311060	1N60P	1 C
D02	0311060	1N60P	1 C
D03	0311160	1S2473	2 C
D04	0340090	DS-430	2 C
D05	0340090	DS-430	2 C
D06	0311160	1S2473 (D)	2 C
T01	4235930	FM IF Coil	1 A, B
T02	4235750	Discriminator Coil	1 C
T03	4235760	Discriminator Coil	1 C
T04	4235940	FM Meter Coil	1, 2 C
T05	4230620	AM IF Coil	1, 2 B C
T06	4220550	AM OSC Coil	2 B
T07	0910270	Ceramic Filter	1, 2 B
L01	4200560	FM ANT Coil	1 A
L02	4210300	FM RF Coil	1 A
L03	4010120	Choke Coil	1 A
L04	4220530	FM OSC Coil	1 A, B

Parts No.	Stock No.	Description	Position
L05	4290011	3.5μH Peaking Coil	2 A, B
L06	4900100	3.3μH Micro Inductor	1 A
L07	4240720	19kHz Coil	1 D
LC01	4240710	MPX Coil Brock	2 D
CF01	0910150	Ceramic Filter	1 B
CF02	0910150	Ceramic Filter	1 B
LPF01	0910220	Low Pass Filter	1 D
VC01-05	1220170	AM FM Variable Capacitor	2 A
TC01, 02	1220170	AM FM Variable Capacitor	2 A
TC04, 05	1220170	AM FM Variable Capacitor	2 A
VR01	1035150	22kΩ (B) TUNE Meter Volume	1 C
VR02	1035070	1kΩ (B) MPX Separation Volume	1 D
C01	0669369	8.2pF	1 A
C02	0654102	1000pF	1 A
C03	0659015	2200pF	1 A
C04	0657223	22000pF	1 A
C05	0659015	2200pF	1 A
C06	0669002	3.9pF	1 A
C07	0669370	10pF	1 A
C08	0659015	2200pF	1 A
C09	0654102	1000pF	1 A
C10	0661220	22pF	1 A
C11	0657223	22000pF	1 A
C12	0669370	10pF	1 A, B
C13	0669200	1pF	1 A
C14	0669395	10pF	1 A
C15	0669395	10pF	1 B
C16	0669370	10pF	1 B

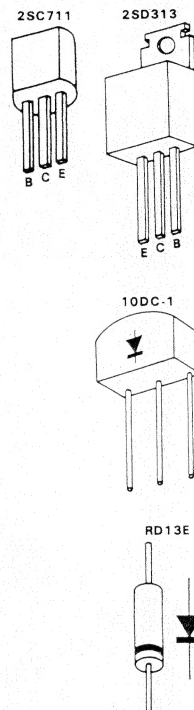
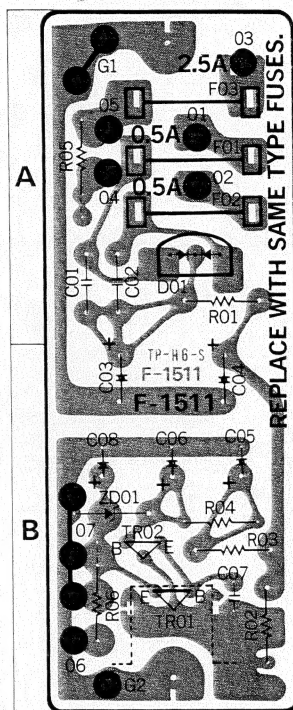


Parts No.	Stock No.	Description	Position
C17	0657223	22000pF	1 B
C18	0657223	22000pF	1 A
C19	0657223	22000pF	1 B
C20	0657223	22000pF	1 B
C21	0657223	22000pF	1 B
C22	0657223	22000pF	1 B
C23	0657223	22000pF	1 B
C24	0657223	22000pF	1 B
C25	0657223	22000pF	1 B
C26	0657223	22000pF	1 B
C27	0657223	22000pF	1 C
C28	0657223	22000pF	1 C
C29	0660101	100pF	1 C
C30	0660101	100pF	1 C
C31	0512100	10μF	1 C

Parts No.	Stock No.	Description	Position
C32	0515109	1μF	1 C
C33	0660101	100pF	1 C
C34	0660101	100pF	1 C
C35	0657223	22000pF	1 C
C36	0657223	22000pF	1 C
C37	0657223	22000pF	1 C
C38	0657223	22000pF	1 C
C39	0657223	22000pF	2 C
C40	0519103	0.47μF	2 C
C41	0512100	10μF	1 C, D
C42	0657223	22000pF	2 B
C43	0601106	0.001μF	2 B
C44	0515109	1μF	2 B
C45	0511100	10μF	2 C
C46	0601107	0.01μF	2 B
C47	0601477	0.047μF	2 C
C48	0601107	0.01μF	2 B
C49	0512101	100μF	2 B
C50	0601106	0.001μF	1 C
C51	0657223	22000pF	2 B
C52	0669215 or 0661150	15pF	2 B
C53	0620361	360pF	2 B
C54	0601107	0.01μF	2 B
C55	0512100	10μF	2 B
C56	0513479	4.7μF	1 D
C57	0515109	1μF	1 D
C58	0515109	1μF	1, 2 D
C59	0600826	0.0082μF	2 B
C60	0600826	0.0082μF	2 B
C61	0512101	100μF	1, 2 D
C64	0515109	1μF	2 C
C65	0515109	1μF	2 C, D
C66	0519339	3.3μF	1, 2 C
C67	0601686	0.0068μF	2 C, D
C68	0601686	0.0068μF	2 C
C69	0512100	10μF	2 C
C70	0519105	2.2μF	2 D
C71	0519105	2.2μF	2 D
C72	0512221	220μF	1 A
C73	0510470	47μF	2 B
C74	0600477	0.047μF	2 C
C75	0513479	4.7μF	1 D
C76	0600157	0.015μF	2 D
C77	0600157	0.015μF	2 D
C78	0513479	4.7μF	1 D
C79	0629001	6800pF	1 D
TC03	1230090	Trimmer Capacitor	1, 2 A
R01	0106103	10kΩ	1 A
R02	0113394	390kΩ	1 A
R03	0113103	10kΩ	1 A
R04	0113104	100kΩ	1 A
R05	0113101 (3SK41 (L))	150Ω	1 A
R06	0113105	1MΩ	1 A
R07	0113220	22Ω	1 A
R08	0113562	5.6kΩ	1 A
R09	0113123	12kΩ	1 A
R10	0113332	3.3kΩ	1 A
R11	0106822	8.2kΩ	1 A
R12	0106222	2.2kΩ	1 B
R13	0106220	22Ω	1 A
R14	0113222	2.2kΩ	1 A, B
R15	0113102	1kΩ	1 B
R16	0113471	470Ω	1 B
R17	0113221	220Ω	1 B
R18	0113392	390Ω	1 B

4-2. F-1511 Power Supply Circuit Board

(Stock No. 7500890 Complete Circuit Board F-1511)



Parts List

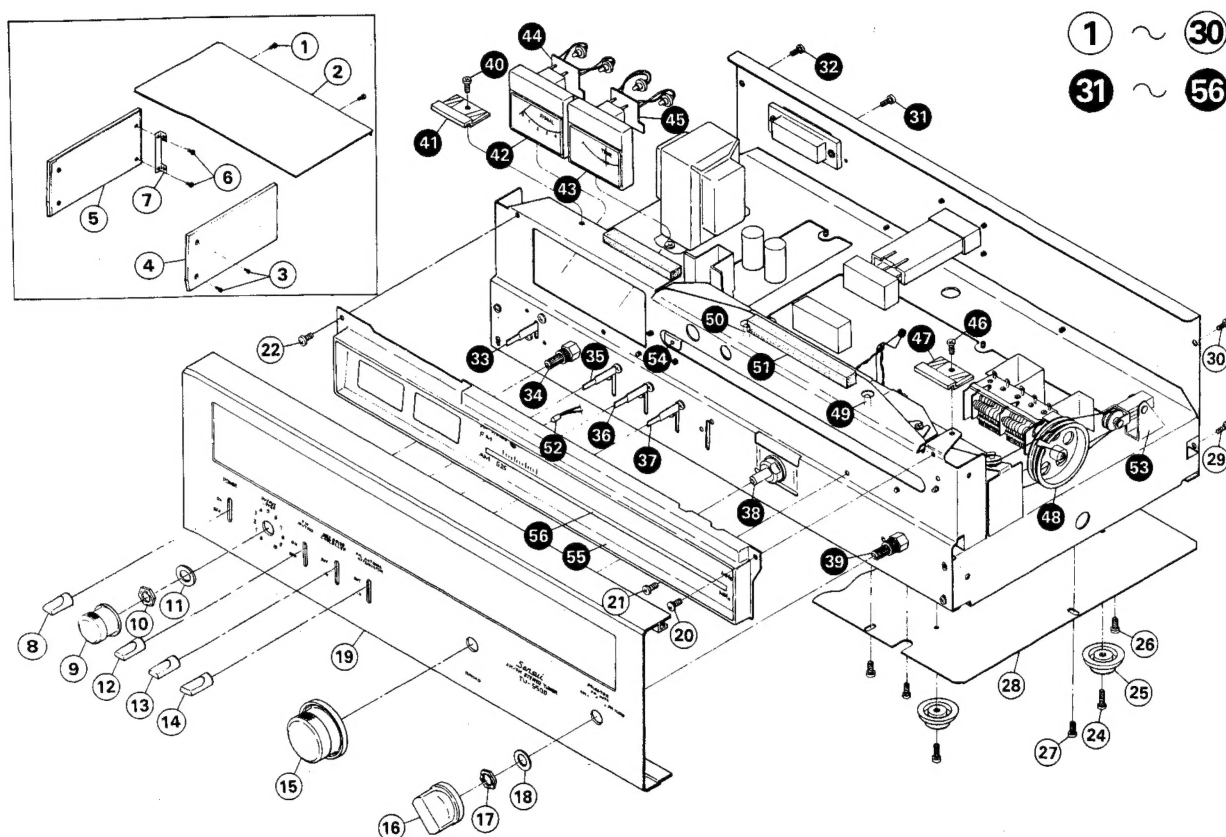
Parts No.	Stock No.	Description	Position
R19	0113152	1.5kΩ	1B
R20	0113101	100Ω	1B
R21	0113182	1.8kΩ	1B
R22	0113471	470Ω	1B
R23	0113681	680Ω	1B
R24	0113101	100Ω	1B
R25	0113271	270Ω	1B
R26	0113152	1.5kΩ	1B
R27	0113220	22Ω	1B
R28	0113271	270Ω	1B
R29	0113391	390Ω	1B
R30	0113681	680Ω	1B
R31	0113472	47kΩ	1B C
R32	0113222	2.2kΩ	1C
R33	0113682	6.8kΩ	1C
R34	0113331	330Ω	1C
R35	0113102	1kΩ	1C
R36	0113102	1kΩ	1C
R37	0113101	100Ω	1C
R38	0113471	470Ω	1C
R41	0113473	47kΩ	1C
R42	0113103	10kΩ	1C
R43	0113183	18kΩ	1C
R44	0113102	1kΩ	1C
R45	0113101	100Ω	1,2C
R46	0113122	1.2kΩ	2B, C
R47	0113682	6.8kΩ	2C
R48	0113104	100kΩ	2C
R53	0113471	470Ω	1C
R54	0113101	100Ω	2B
R55	0113122	1.2kΩ	2B
R56	0113152	1.5kΩ	2B
R57	0113103	10kΩ	2B, C
R58	0113103	10kΩ	2C
R59	0113182	1.8kΩ	2B
R61	0113183	18kΩ	1,2C
R62	0113392	3.9kΩ	2B
R63	0113224	220kΩ	2B
R64	0113151	150Ω	2B
R65	0113560	56Ω	2B, C
R66	0113334	330kΩ	2C
R67	0107102	1kΩ	1D
R68	0113151	150Ω	1D
R69	0113101	100Ω	1D
R70	0113332	3.3kΩ	1D
R71	0113332	3.3kΩ	2D
R72	0113472	4.7kΩ	1D
R73	0113151	150Ω	1D
R74	0113104	100kΩ	2C
R75	0113223	22kΩ	1D
R76	0113223	22kΩ	2D
R85	0113472	4.7kΩ	1,2C
R86	0113563	56kΩ	2C
R87	0113563	56kΩ	1C
R88	0113223	22kΩ	1C
R89	0113223	22kΩ	1C
R90	0113152	1.5kΩ	2D
R91	0113152	1.5kΩ	2D
R92	0113224	220kΩ	2C
R93	0113222	2.2kΩ	2C
R94	0113222	2.2kΩ	2C
R95	0113562	5.6kΩ	2C, D
R96	0113472	4.7kΩ	2C, D
R97	0113562	5.6kΩ	2D
R98	0113472	4.7kΩ	2D
R99	0113221	220Ω	1A
R100	0113470	47Ω	1A
R101	0113220	22Ω	1B, C
S01	1110270	De-Emphasis Switch	2D
	2260010	Test Pin	

Parts No.	Stock No.	Description			Position
TR01	0308392, 3	2SD313 (E, F)	} Transistor		B
TR02	0305732, 3	2SC711 (E, G)			B
D01	0310680	10DC-1	Diode		A
ZD01	0315310	RD13A (N)	Zener Diode		B
C01	0659011	0.01 μ F	} 500V C.C.		A
C02	0659011	0.01 μ F			A
C03	0514471	470 μ F	} 35V E.C.		B
C04	0514471	470 μ F			B
C05	0513470	47 μ F	} 25V E.C.		B
C06	0513470	47 μ F			B
C07	0601107	0.01 μ F	50V M.C.		B
C08	0512101	100 μ F	16V E.C.		B
R01	0103100	10 Ω	$\frac{1}{2}$ W C.R.		A
R02	0107100	10 Ω	} $\frac{1}{4}$ W C.R.		B
R03	0107102	1k Ω			B
R04	0107391	390 Ω			B
R05	0192100	10 Ω	$\frac{1}{2}$ W Fuse Resistor		A
R06	0107102	1k Ω	$\frac{1}{4}$ W C.R.		B
F01	0430810	250V 0.5A	} Power Fuse		A
F02	0430810	250V 0.5A			A
F03	0430860	250V 2.5A			A

Abbreviations

C.R. :	Carbon Resistor	BP.E.C. :	Bi-Polar Electrolytic Capacitor
S.R. :	Solid Resistor	C.C. :	Ceramic Capacitor
CE.R. :	Cement Resistor	MI.C. :	Mica Capacitor
M.R. :	Metallized Film Resistor	O.C. :	Oil Capacitor
M.C. :	Mylar Capacitor	P.C. :	Polystyrene Capacitor
E.C. :	Electrolytic Capacitor	T.C. :	Tantalum Capacitor

4-3. Other Parts (Front Side)

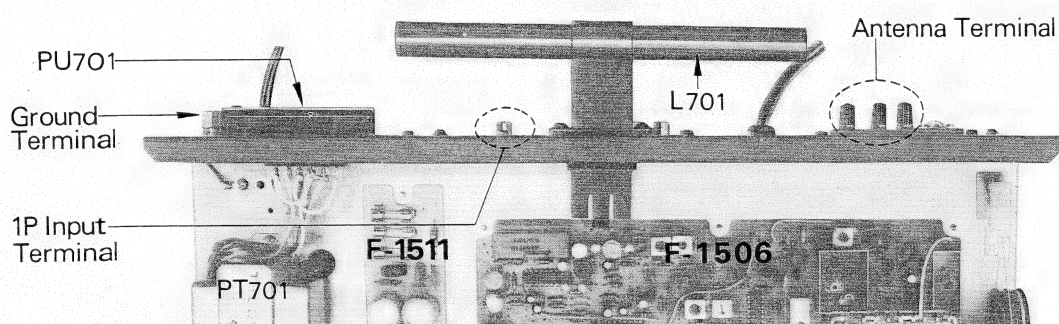


Parts List

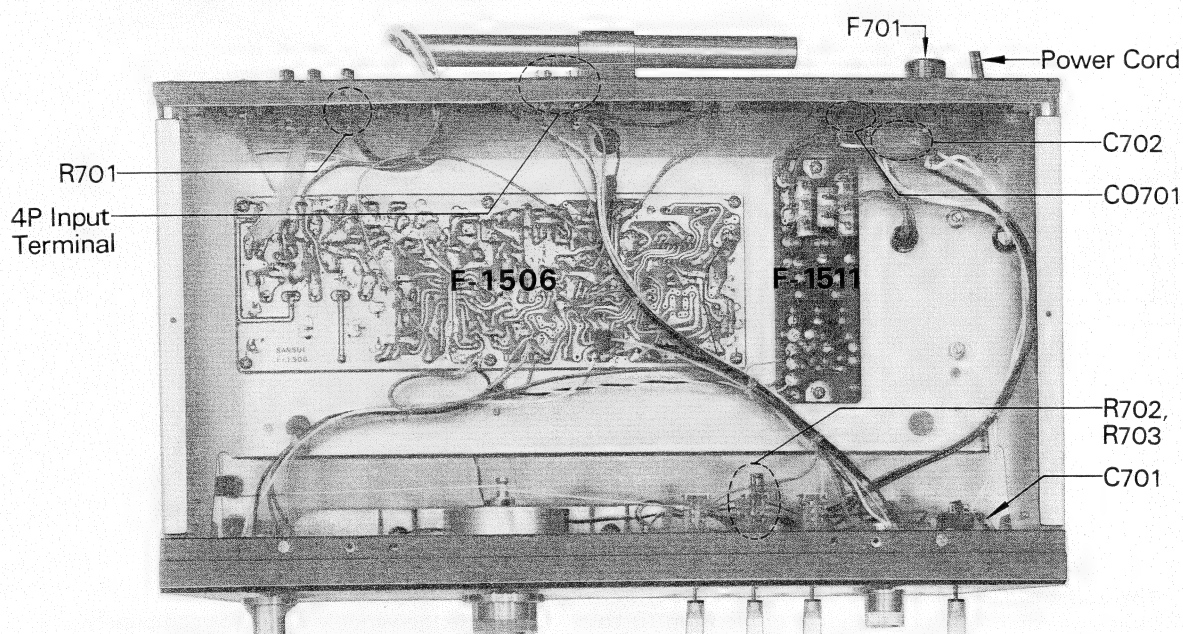
Parts No.	Stock No.	Description
1	5101143	Binding Head Screw, M3×6
2	5006330	Bonnet
3	5101161	Binding Head Screw, M4×6
4	5309270	Side Panel R
5	5309260	Side Panel L
6	5109121	Binding Head Tapping Screw, M3×6
7	5269830	Retainer (Side Panel)
8	5326460	Knob (Power Switch)
9	5317880	S-5 TY Type Knob (Level Volume)
10	5110780	Hex. Nut, M8
11	5120183	Plain washer, 8φ
12	5326460	E-1 Type Knob (Muting)
13	5326460	E-1 Type Knob (Noise Canceller)
14	5326460	E-1 Type Knob (Antenna Att.)
15	5317921	T-7 Type Knob (Tuning)
16	5318041	S-5 Metal Type Knob (Selector Switch)
17	5110781	Hex. Nut, M9
18	5120184	Plain Washer, 9φ
19	5309310	Front Panel
20	5101043	Binding Head Screw, M3×6
21	5101043	Binding Head Screw, M3×6
22	5101043	Binding Head Screw, M3×6
23	5309450	Dial Scale Flame
24	5166520	Washer Head Tapping Screw, M3×12
25	5516940	Foot
26	5109222	Binding Head Tapping Screw, M3×8
27	5109222	Binding Head Tapping Screw, M3×8
28	5058211	Bottom Plate

Parts No.	Stock No.	Description
29	5109222	Binding Head Tapping Screw, M3×8
30	5109222	Binding Head Tapping Screw, M3×8
31	5109222	Binding Head Tapping Screw, M3×8
32	5109222	Binding Head Tapping Screw, M3×8
33	1170330	Power Switch
34	1011051	Level Volume
35	1170390	Level Switch (Muting)
36	1170390	Level Switch (Noise Canceller)
37	1170390	Level Switch (FM Antenna Att.)
38	7036391	Tuning Unit Ass'y
39	1101590, I	Selector Switch
40	5101143	Binding Head Screw, M3×6
41	5269880	Panel Holder
42	4300690	Signal Meter
43	4300680	Tune Meter
44	7726040	Lamp Unit
45	7726040	Lamp Unit
46	5101143	Binding Head Screw, M3×6
47	5269830	Panel Holder
48	6146670	D-44 Pulley
49	0400330	7V 100mA Dial Lamp
50	6400330	7V 100mA Dial Lamp
51	5446191	Cover Plate, Dial Lamp
52	7726090	LED Ass'y (B) FM Stereo Indicator
53	7136050	Tention Unit
54	7726070	Dial Pointer Ass'y
55	5407732	Dial Scale
56	5047770	Smoked Plate

4-4. Other Parts (Top Side)



4-5. Other Parts (Bottom Side)



Other Parts List (Top, Bottom Side)

Parts No.	Stock No.	Description		
C701	0659801	0.01 μ F	1.4kV	Ceramic Capacitor
C702	0605477	0.047 μ F	250V	Mylar Capacitor
C703	0601157	0.015 μ F	50V	
R701	0113122	1.2k Ω	$\frac{1}{4}$ W	Solid resistor
R702	0113681	680 Ω		
F701	0431222	1A Power fuse (100~117V)		
	0431212	0.5A Power fuse (220~240V)		
	2300060	AC Fuse holder		
CO701	2450060	AC Outlet		

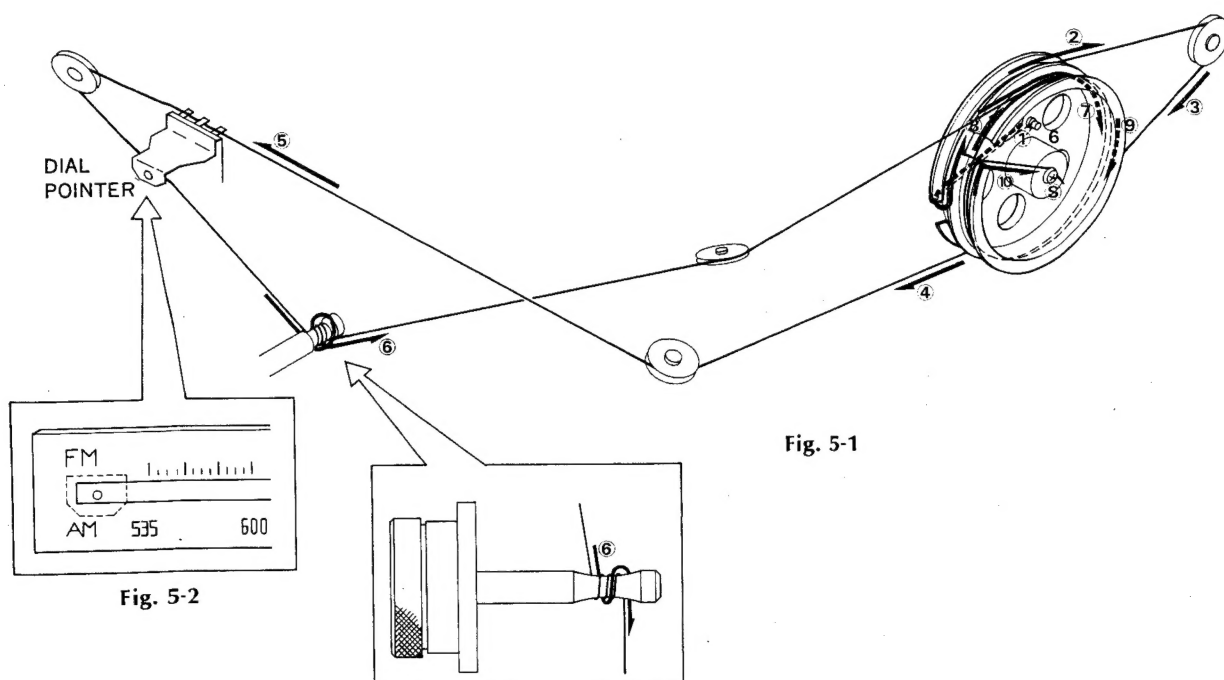
Parts No.	Stock No.	Description
PT701	4002020	Power trasformen
	3800090	Power Cord
	2200320	4P Input terminal
	2230051	Ground terminal
	2200290	1P Input terminal
	2210190	Antenna terminal
L701	4200660	Bar Antenna
PU701	2410090	Voltage selector, Plug
	2410080	Voltage selector, Socket
	5268600	Voltage selector, Cover

5. THREADING OF DIAL CORD

* If a dial cord is cut off or slips, replace it by following procedures.

As TU-5500 uses 0.6mm ϕ Cord, please replace it with the same type certainly.

* The length of dial cord is approximately 170cm (66 inch).



1. Threading of Dial Cord.

Thread the dial cord in numerical order from ① to ⑩ as Fig. 5-1.

- 1) Close the variable capacitor completely (Max. capacitance).
- 2) Only when you replace variable capacitor with new one, turn up the screw ⑤ completely so that the screw 6 on dial pulley is positioned as shown in Fig. 5-1.
- 3) Tie the cord to screw 6 and thread it in the direction of arrow from ① to ⑤
- 4) Then, after winding the cord 3 turns around the tuning shaft counterclockwise, thread it from ⑦ to ⑩.
- 5) After ⑩, tie the cord to the screw ⑤ of the dial pulley.

*To strengthen the dial cord's tension, hold the end of cord, then pull it toward the front panel.

Turn tuning shaft counterclockwise so that the cord's tension will be more obtained.

*After procedure 5), lock the knot ⑩ of the cord and the screw ⑥ with paint.

2. Attachment of Dial Pointer

- 1) Close the variable capacitor completely.
- 2) Set the dial pointer to the position on dial scale as shown in Fig. 5-2.

*Confirm that the dial pointer runs smoothly on the dial scale by turning the tuning shaft.

Stock No.	Description
6036050	Dial Cord (0.6mm ϕ)

6. TROUBLESHOOTING CHART

〈Notices when servicing this unit〉

○On Light Emitted Diode (LED)

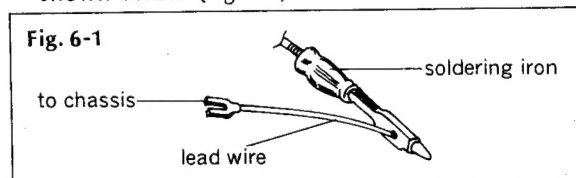
The LED used as Pilot Lamp driven by constant current has characteristics of extreme low reverse break-down voltage (DC 3V) and also it would be easily influenced by discharge voltage from capacitors in power amplifier section.

Therefore, after power switch is turned OFF and lapse of a few seconds, perform the replacement of LED.

○Notice when replacing IC

- 1) Do not vent the leads of IC more than 3 times.
- 2) When using a soldering iron, IC should be absolutely isolated from current leakage of the iron. In

order to protect IC against break-down, connect a lead wire from the iron to ground (chassis) as shown below. (Fig. 6-1)



- 3) As IC is extremely weak against heat, use a soldering iron as shorter as possible.

6-1. Troubleshooting on Power Supply Section

Symptom	Check Point	Cause & What to Do
1. No power supplied to each section		
1-1. Each lamp not lighted		<ol style="list-style-type: none"> 1. Imperfect contact of power supply plug 2. Defective power switch S701 3. Imperfect contact of voltage selector PU-701 4. Power fuse F701 open 5. F03 on F-1511 open 6. Defective power transformer, PT701
1-2. Power indicator lamp not lighted		
1) +12V not supplied to terminal [07] on F-1511		<ol style="list-style-type: none"> 7. F01, F02 on F-1511 open 8. Defective D01 on F-1511 9. Defective TR01, TR02 on F-1511 10. Defective ZD01 on F-1511
2) +12V supplied to terminal [07] on F-1511		<ol style="list-style-type: none"> 11. Defective Light Emitted Diode LED701

6-2. Troubleshooting on Tuner Section

1. FM and AM inoperative

- 1-1. +12V not supplied to terminal [19], [20], [21] on F-1506 — 1. Defective power supply section (F-1511)
- 1-2. +12V supplied to terminal [19], [20], [21] on F-1506 —
 2. Defective LPF01 on F-1506
 3. Defective IC04 on F-1506

2. FM Section

* Before check, set MUTING switch to OFF

2-1. FM inoperative only

- 1) Signal meter inoperative —
 4. IF, RF out of adjustment on F-1506
 5. Defective L01~L04 on F-1506
 6. Defective T01 on F-1506
 7. Defective FET01 on F-1506
 8. Defective TR01~TR05 on F-1506
 9. Defective CF01, CF02 on F-1506
- 2) Signal meter operative —
 10. Defective IC01 on F-1506
 11. Defective T02, T03 on F-1506
 12. Defective D01, D02 on F-1506

to be continued

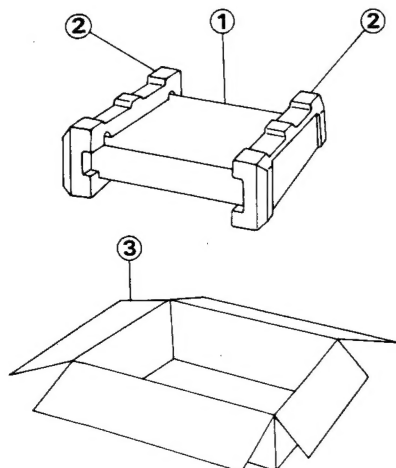
Symptom	Check Point	Cause & What to Do
2-2. Stereo indicator lamp not lighted	1) No channel separation on FM stereo broadcasting 1-1) MPX output signals including Rand L not supplied to 11 and 12 of IC03 on F-1506 2) Operative channel separation on FM stereo broadcasting	13. Defective IC03 on F-1506 14. L07 out of adjustment on F-1506 15. Defective L07 on F-1506 16. Defective LC01 on F-1506 17. Defective VR02 on F-1506 18. Defective Light Emitted Diode LED702
2-3. Signal meter inoperative (FM broadcasting sound can be heard)		19. Defective TR06 on F-1506 20. Defective T04 on F-1506 21. Defective D03, D04 on F-1506 22. Defective signal meter
2-4. Muting circuit inoperative (FM Section will be inoperative when the Muting is switched ON)		23. Defective muting switch S703 24. RF, IF out of adjustment on F-1506 25. Defective FM Antenna Attenuator S702

3. AM Section

3-1. AM inoperative		
1) Signal meter operative (AM broadcasting sound can not be heard)		26. Defective TR07 on F-1506 27. Defective IC04 28. Defective LPF01 on F-1506
2) Signal meter-inoperative (AM broadcasting sound can not be heard)		29. Shorted IC02 on F-1506 30. Defective T05~T07 on F-1506 31. Defective L05, L06 on F-1506 32. Opened coil of Bar Antenna L701 33. Uncomplete tracking IF adjustment

7. PACKING LIST

Parts No.	Stock No.	Description
1	9116640	Vinyl Cover
2	9027790	Stylofoam Packing
3	9008032	Carton Case



8. ACCESSORY PARTS LIST

Stock No.	Description
3820091	FM Antenna
3810180	Pinplug Cord
9208370	Operating instructions
9228370	Operating instruction sheet

9. SCHEMATIC DIAGRAM

* Design and specifications subject to change without notice for improvements.

